OSWER Innovations Pilot

eCommerce Packaging and Shipping Design

The Office of Solid Waste and Emergency Response (OSWER) Assistant Administrator Marianne Horinko in December 2001 initiated a series of innovative pilots to test new ideas and strategies for environmental and public health protection to make OSWER programs more efficient, effective, and user-friendly. A small amount of money is set aside to fund creative proposals submitted by OSWER Headquarters and Regional employees. EPA employees are encouraged to talk to States, Tribes, local governments and external stakeholders about proposal ideas and partner on a project. The creative projects test approaches to waste minimization, energy recovery, recycling, and land revitalization that may be replicated across various sectors, industries, communities, and regions. We hope these pilots will pave the way for programmatic and policy recommendations by demonstrating the environmental and economic benefits of creative, innovative approaches to the difficult environmental challenges we face today.

BACKGROUND

Every year internet-based companies ship millions of customer packages throughout the world. The growth of eCommerce has provided many societal benefits, including jobs and accessibility to a broader selection of products, services, and media. Despite a recent cooling of the internet business frenzy, it is clear that eCommerce will play an increasing role in our personal and professional lives in the years to come. However, the eCommerce revolution also has contributed to an increase in paper and plastic packaging materials to our local municipal solid waste systems each year. The current recycling infrastructure recovers some of the paper and plastics, but there is a substantial opportunity to optimize the current process.

PILOT APPROACH

The U.S. EPA Office of Solid Waste, in partnership with McDonough Braungart Design Chemistry, LLC., will work toward implementation of a redefined cradle to cradle approach to the problem of eCommerce packaging waste. The Pilot will consist of two phases: 1) development of a progressive design framework for eCommerce packaging; and 2) execution of a Design Challenge to solicit innovative designs which meet the framework outlined in phase one. In the first phase, a draft product design framework will be developed with active stakeholder engagement and collaboration. In the second phase, a Design Challenge will be issued to all interested parties to develop and present their ideas on eliminating waste in eCommerce product packaging. An evaluation committee will review the proposal and spotlight those that most clearly reach a closed looped shipping package system.

INNOVATION

The pilot will help spark design innovation, underscore the essential role of design toward a sustainable future while cutting cost and enhancing consumers' understanding of their role in helping advance pollution prevention and resource conservation in the commerce industry. It challenges companies to rethink systems, materials and product development processes around the goal of eliminating the concept of waste. The pilot seeks to transform the current packaging system and will be accomplished through the combined expertise, ingenuity, cooperation and commitment of all actors involved in the package delivery system.

BENEFITS

By establishing a new design framework for shipping packages, the Pilot will lead to reductions in waste and greenhouse gas. In addition, by convening key stakeholders, including government and industry leaders, as well as environmental and social advocacy stakeholders through the Design Challenge, the project will build public support for environmental stewardship. The convening of a specific, focused event for government and industry leaders to explore the potential for cooperation and innovation will take tangible steps toward an optimized package design for eCommerce product shipping that eliminates the concept of waste for these materials.

CONTACTS

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For additional information, visit the EPA OSWER Innovations web site at: www.epa.gov/oswer/IWG.htm